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AMSAT NEWS SERVICE
ANS-296

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-296.01
SSETI Express Readies for Launch October 27

AMSAT News Service Bulletin 296.01
From AMSAT HQ SILVER SPRING, MD.
October 23, 2005
To All RADIO AMATEURS
BID: $ANS-296.01

The SSETI Express satellite is still scheduled to launch at 06:52 UTC on Thursday, October 27 on board a Kosmos 3M launcher.

The launch team arrived in Moscow and next completed an 18 hour journey by train to Plesetsk. The ISC (integrated system check) was completed satisfactorily within a couple of hours of powering up. All the systems are OK. The propulsion tank had maintained the required 300 bar pressure. Both UHF and S band radios were also tested - including the transponder and DTMF telemetry configurations.

Final battery charging was performed over the weekend. SSETI Express will be joined with the other four satellites on the launch adaptor on Monday, October 24. The launch adaptor will itself then be integrated onto the rocket.

Roll out of the complete launch vehicle at the launch complex (approx 40 kilometres away from the assembly facility) is scheduled for very early on Wednesday morning and its erection to the vertical position will take place around midday. The launch team will then pack up all the test gear and other equipment for its return to ESA ESTEC's facility in the Netherlands to await the launch to take place the following day!

A daily report of the launch campaign is being maintained at http://sseti.gte.tuwien.ac.at/express/mop/index.php?uri=news.html This mission operations site is completely up-to-date regarding Kepler TLEs and other LEOP "Launch and Early Operations Phase" details.

The SERACC software, needed to decode and submit the received data
to the SSETI database, together with some audio files containing recorded
9k6 signals to experiment with is planned for release prior to launch.

There will be two SSETI Express competitions for radio amateurs.
First is the unique "I heard it first" T shirt award; second is
the prize for amateur who submits the largest amount of valid telemetry
and payload data to the SSETI Express database before 1st February 2006.
The telemetry prize, sponsored by ESA, is rather more valuable than just
a T shirt - see the full details at:
http://sseti.gte.tuwien.ac.at/express/mop/index.php?uri=ham_contest.html

Full details of these events will be available on the Express mission
website. This includes full information about the satellite, the ESA
sponsored competition,and the plans for its use in the amateur
satellite service.  See:
http://sseti.gte.tuwien.ac.at/express/mop/

The ESA website about SSETI Express is at:
http://www.esa.int/SPECIALS/sseti_express/SEMARJ7X9DE_0.html

The latest version of the SSETI Express handbook can be downloaded
free of charge from the AMSAT-UK website at:
http://www.uk.amsat.org/

A live webstream of the ESA produced TV coverage of the launch is
going to be provided by Howard G6LVB at:
http://www.streamingwizard.com/clients/space.asx

The programming on the web stream is expected to commence at
approximately 06:00 UTC on launch day.

[ANS thanks Graham, UA/G3VZV for the above information]

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SB SAT @ AMSAT $ANS-296.02
P3-E Satellite News and Project Report

AMSAT News Service Bulletin 296.02
From AMSAT HQ SILVER SPRING, MD.
October 23, 2005
To All RADIO AMATEURS
BID: $ANS-296.02

Peter Guelzow, DB2OS, President AMSAT-DL and the P3-E Project leader
wrote a report to update radio amateurs about the progress of the
satellite:

First of all I have to apologize for the little information about the
P3-E progress over the last few months.  Updates were provided during
presentations at the recent AMSAT-UK Colloquium.  We also publish news
in the AMSAT-DL magazine which is also then reprinted in the AMSAT-NA
Journal.  To accomodate the delays inherent in these publishing media
we will provide information via the AMSAT-DL website and e-mail such
as the AMSAT-BB.

To improve communications with our membership and worldwide audience,
AMSAT-DL decided to improve the information flow on our website using
a new content management system (CMS, Mambo).  Unfortunately this took
much longer than anticipated, but the new portal should be available
to the public by December.

The CMS itself is almost fully functional, but we have to transfer and

re-edit all the information from our old website. As you can probably imagine, this is still a lot of work. However, once it is running, we hope to put more information on-line and also have a news section with more regular updates. Indeed, because of this, we almost stopped updating the old website.

So far, AMSAT P3-E is making good progress, but slowly. Some modules have already arrived in Marburg for integration, but other module builders are making use of the additional time due to the yet unknown launch date.

The wiring harness is defined and will be built and integrated into the spacecraft soon. Thanks to the CAN-bus and our CAN-DO module controllers, it will be not such a big beast as on previous P3 satellites.

Additional radiation testing has been performed on the CAN-DO. The CAN-DO module and other selected electronic components for P3-E and P5-A were exposed to protons with an energy of 60 MeV. The CAN-DO module stopped operating at 61 krad, which is good for a projected mission duration of more than 10 years. Since the CAN-DO module is one of the most critical parts on P3-E and P5-A, this gives us a better feeling that it should not suffer from radiation induced failure. Aradiation test is also planned for the IHU-3 within the next couple of weeks.

Very good progress was also reported from the development teams of the new IHU-3, both in terms of hardware and software. While a big step forward was made, the full integration and testing of the operational IPS software and all it's functionality (including the turbo codes and software defined modems) is the next step.

In addition to the analog transponders flying on P3-E, we will also look into the possibility to have an SDT (software defined transponder) flying on P3-E for the first time. The recent developments on Software Defined Radio technologies and STELLA, may give us completely new ideas. While this is quite late and various details must still be discussed, the necessary RF interfaces are already available in the module space. Expect to hear more about this in the future updates.

An extremely critical step was taken a few days ago when Ariane 5 scored a double success for Arianespace with the successful launch of Syracuse 3A and Galaxy 15 on-board flight V168.

While we do not yet have an official launch manifest, we are in full contact with our partners at Arianespace. Everyone is working hard to find a suitable slot for P3-E to the benefit of both sides. While the year 2005 is almost over, our target to get P3-E into orbit is still 2006 and will remain so. Clearly, the continuing success of the new Ariane 5 will help us too. Initial arrangements for environmental testing, including vibration and thermal vacuum testing are already made.

Indeed, we still need a lot of support for P3-E and donations. But with all the contributions we are receiving, P3-E will be truly another international satellite. I'm in particular delighted, that AMSAT-NA joined and supports the P3-E project. We have excellent personal relationship between our organisations and apart from the fun, things are developing really good to the benefit of EAGLE, P3-E and all the projects on the horizon.

[ANS thanks Peter Guelzow, DB2OS, President AMSAT-DL, P3-E Project leader for the above information]

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SB SAT @ AMSAT $ANS-296.03
Jamboree on the Air Satellite Success

AMSAT News Service Bulletin 296.03
From AMSAT HQ SILVER SPRING, MD.
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To All RADIO AMATEURS
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Lee McLamb, KU4OS, reported that Troop 393 in Merritt Island, FL had an excellent time working the satellites at station W4J during the Saturday, October 15 International Scouting Jamboree on the Air.

Lee wrote, "We made 11 contacts on SO-50 and AO-51. Two Scouts also got to talk with Commander William McArthur who was calling CQ JOTA from NA1SS which resulted resulted in a lot of whooping and jumping around after each ISS pass."

Helping the Scouts with the satellites at W4J were Don AG4FC, George KF4XB and Lee KU4OS. We kept things very simple using HTs, Arrow or home brew antennas and a 2m rig in the car with a 1/4 wave whip.

Emily Clarke, W0EEC, was staffing the AMSAT booth at the Pacificon Hamfest, and invited the JOTA Scouts to use the satellite station. Several came over, but only one took the microphone. Scout Matthew made contacts on AO-51. He and his parents were so excited they came back and Matthew again took the microphone on VO-52.

This was the first time we were in a position to have JOTA on Sats, so we learned that a) kids are shy and b) they aren't as spontaneous as we are. Matt was very cool and his parents were very excited.

The ARRL Letter included JOTA reports via ISS from KD4SFF, KB9UPS, and N5VHO. Al, KD4SFF ("scouting for fun"), worked NA1SS while waiting for scouts to arrive at his JOTA operation at Paris Mountain State Park in Greenville, South Carolina. Commander Bill McArthur, aboard the ISS, obliged KD4SFF by sending his greetings to all scouts.

"Greeting to all the scouts worldwide. It's a thrill for us today to be participating in JOTA!" McArthur said from orbit.

Al, who is the South Carolina AMSAT Area Coordinator, says he recorded his QSO and replayed it to his scout group as well as to others he contacted during JOTA. "Everyone was thrilled to hear Bill's message from the ISS!" he said.

Steve, KB9UPS, was among the others lucky enough to snag a contact with NA1SS during JOTA weekend. Amateur Radio on the International Space Station (ARISS) Ham Radio Project Engineer Kenneth Ransom, N5VHO, said McArthur's JOTA participation "wowed scouts and other hams." Among others, NA1SS also worked stations in Ontario, Virginia, New York and Texas.

Ransom said he heard McArthur work special event station W4J on the second pass over the central part of North America.

ANS looks forward to publishing other JOTA success stories. Send your report to ans-editor@amsat.org and we will publish it here.

[ANS thanks Lee, KU4OS, and Emily, W0EEC, and the ARRL Letter for the above information]

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SB SAT @ AMSAT $ANS-296.04
Reminder of ARISS Resources on the Web

AMSAT News Service Bulletin 296.04
From AMSAT HQ SILVER SPRING, MD.
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The ARISS schedule page will provide you with a listing of all scheduled school contacts and questions, other ISS related websites, IRLP and Echolink websites, and instructions for any contact that may be streamed live. See:
http://www.amsat.org/amsat/ariss/news/arissnews.txt

The successful school list is available at:
http://www.amsat.org/amsat/ariss/news/Successful_ARISS_schools.rtf

An ISS Amateur Radio frequency chart for packet, voice, and crossband repeater modes (also showing Doppler correction can be viewed at:
http://www.amsat.org/amsat/ariss/news/ISS_frequencies_and_Doppler_correction.rtf

You can find a listing of ARISS related magazine articles at:
http://www.amsat.org/amsat/ariss/news/ARISS_magazine_articles.rtf

[ANS thanks Charlie, AJ9N for the above information]

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SB SAT @ AMSAT $ANS-296.05
ARISS Status for the Week of October 17, 2005

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From AMSAT HQ SILVER SPRING, MD.
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1. Upcoming School Contacts
Tomioka Elementary School of Urayasu in Urayasu City, Chiba, Japan has been scheduled for an ARISS contact. It will take place on Friday, October 28 at 10:36 UTC.

2. Article on Fort Hamilton High School Contact
On Thursday, October 6, students from Fort Hamilton High School in Brooklyn, New York enjoyed a contact with Greg Olsen, KC2ONX. The New York Daily News covered the event in a story, "Students get an astro-dinary call." See:
http://www.nydailynews.com/10-07-2005/news/local/story/353274p-301193c.html

3. JOTA 2005
Bill McArthur, KC5ACR, wowed scouts and other hams as he participated in the 2005 Jamboree on the Air (JOTA) held on October 15-16. Stations from New York and South Carolina reported contacts with the ISS. This annual event encourages both Boy Scouts and Girl Scouts to become involved in amateur radio.

4. Astronaut Training
Astronauts Nicole Stott and Garrett Reisman were scheduled to attend an amateur radio license training session on October 18.

[ANS thanks Carol, KB3LKI for the above information]

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SB SAT @ AMSAT $ANS-296.06
AMSAT Awards

AMSAT News Service Bulletin 296.06
From AMSAT HQ SILVER SPRING, MD.
October 23, 2005
To All RADIO AMATEURS
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Bruce Paige, KK5DO, AMSAT's Director Contests and Awards reports
this week, congratulations go out to all of the following:

| | | |
|---|---|---|
| Marc Sanchez | KD5MSS | Satellite Communicators Club Award |
| David Stanley | WI4L | Satellite Communicators Club Award |
| Dan Hart | WD8PFS | Satellite Communicators Club Award |
| Wadhah Al-Tailji | AE6QG | Satellite Communications Achievement Award #422 |
| Masahiro Arai | JN1GKX | 51 on 51 Award #35 |
| Chris Martin | KG7EZ | 51 on 51 Award #36 |
| Bob Lacey | KF4GTA | 51 on 51 Award #37 |

To see all the awards visit http://www.amsat.org.

[ANS thanks Bruce, KK5DO for the above information]

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In addition to regular membership, AMSAT offers membership in the
President's Club. Members of the President's Club, as sustaining donors
to AMSAT Project Funds, will be eligible to receive additional benefits.
Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, WB9JEJ
WB9JEJ at amsat dot org